

GASOLINE FUEL

ABSTRACT OF THE DISCLOSURE

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10 Total combustion and evaporative emissions from gasoline pump fuels
can be controlled with total emissions no higher than those currently allowed by
the addition of an evaporative factor such as RVP to the model predicting
emissions, based on a number of considerations including the sensitivity of
15 emission parameters (toxics, hydrocarbons, CO and NOx) as related to the
variables in the predictive model (oxygenate content, sulfur, T₉₀, T₅₀, aromatics,
olefins, benzene and RVP). The present pump gasolines will normally have
compositions including T₁₀ no greater than 140°F, T₉₀ no greater than 330°F,
RVP no greater than 7 psi and usually lower and sulfur no greater than 50 ppmw.
20 Oxygenates may be eliminated, permitting T₅₀ values to increase which is not
unfavorable from the viewpoint of total emissions provided other parameters are
held within specified limits. Aromatics, olefins and benzene are normally held
to maximum of 35, 10 and 1 vol% respectively to achieve satisfactorily low total
emissions.